
Long Island Offshore Wind Initiative
Project Overview
©AMEC Border Wind

Long Island Offshore Wind Initiative

Wind Partners

- Sustainable Energy Alliance - coalition of some 30 environmental, civic and faith-based groups
  - Citizens Advisory Panel
  - Citizens Campaign for the Environment
  - LI Neighborhood Network
  - Natural Resources Defense Council
  - NY Public Interest Research Group
  - Pace University
  - The STAR Foundation

Why Offshore Wind for Long Island?

- Growth in energy demand on Long Island
  - Peak energy requirements grew 10% from 2001 to 2002
  - New summer peak demand in 2002: 5059MW
- Few siting opportunities on land
- Low cost renewable energy source
- It's CLEAN … NO emissions
- NO fuel costs

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Other Attributes of Windpower

- **World's fastest growing energy source**
- **Technology is proven**
- **Local economic development**
- **Increases US energy independence and national energy security**

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Requirements of Offshore

- Projects must be large
- Very strong winds (Class 5+)
- "Shallow" waters
- Avoidance of excessive waves
- Near transmission and port

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Offshore Tradeoffs

- Corrosive, hostile environment
- Higher costs
- Difficult access
- Lower availability
- New infrastructure
- Long permitting and construction schedule

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Offshore Components

- **Turbines rated between 2 & 4 MW**
- **Tower heights > 200 ft (60m)**
- **Spaced 1/3 to ½ mile apart**
- **Rotor diameters of 250-350 ft**
- **Foundations *(monopole, tripod, or gravity base)***
- **Substation & marine cable**
- **Port Facilities**

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Offshore Technology Trends

- Modification of land-based designs
- Larger turbines
- Marinization (coatings/dehumidification)
- Backup power supply
- Ultra-high reliability components
- Emphasis on safety/access issues
- Foundations

Phase II Offshore Site Study Highlights

- Western portion of south shore off Jones Beach
- Total area size 52 square nautical miles
- Wind Project area about 5 sq. nautical miles
- Median water depth 59.5 feet
- Provides access to land based substations
- Average wind speed 18.4 mph to 19.5mph
- Overall risk to most species of birds is likely to be low
- Visual impacts minimized

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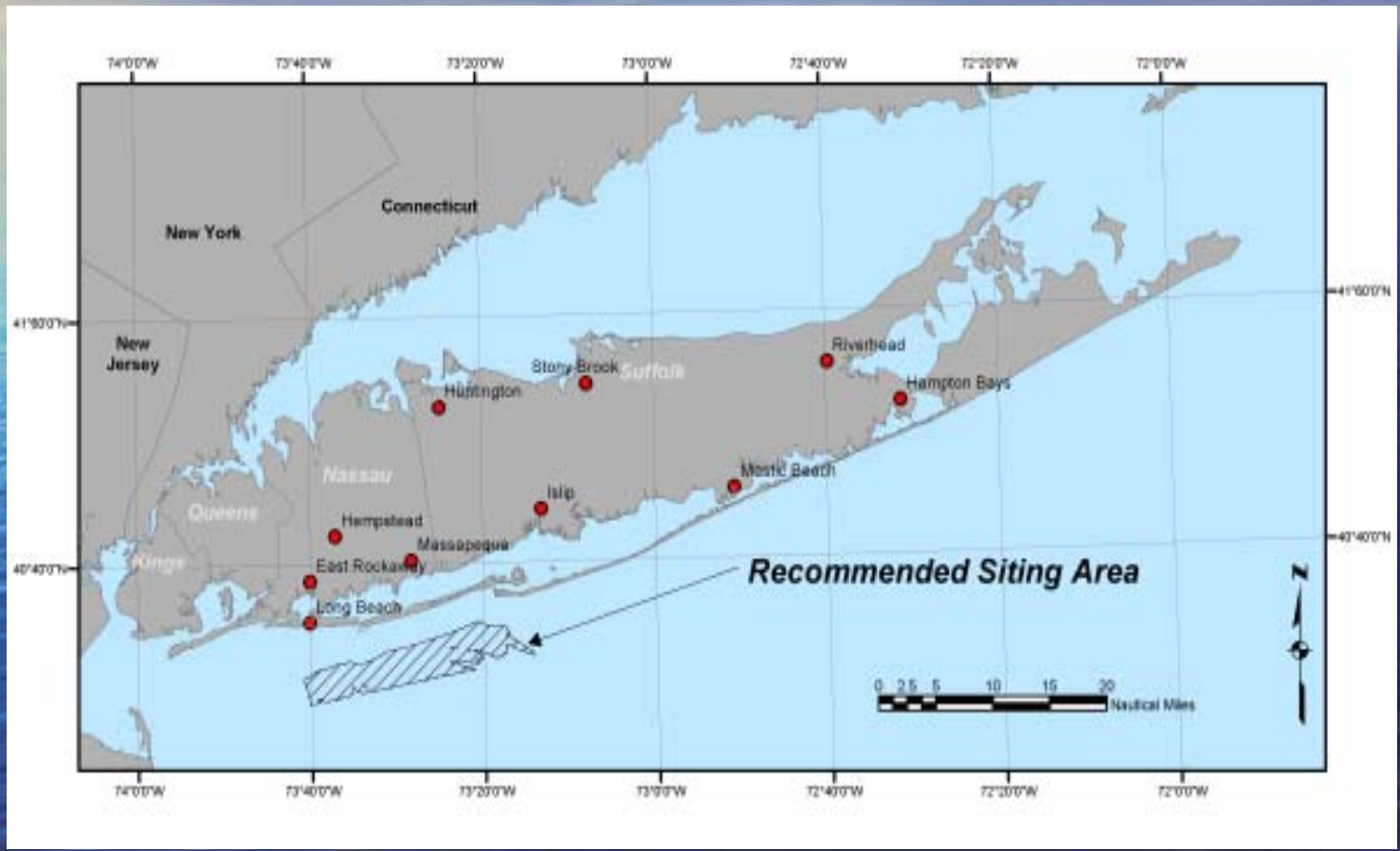
Recommended Siting Area



Why The Recommended Area?

- Shallow water depths extend farther from shore
- Desirable minimum wind speed (> 18 mph)
- Proximity to substations that can accept 100 MW new generation
- Avoidance of migratory bird flyways and sensitive habitat
- Other considerations: fishing, artificial reefs, archeological sites, and shipwrecks/obstructions, etc…

Long Island Benefits

- Provide enough electricity for 30,000 Long Island homes
- Output reduces summer peak load demand
- Energy produced stays on Long Island
- Help ease fuel cost volatility
- Create local jobs and tourism

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Long Island Health Benefits

Annual emission reductions:

sulfur dioxide – 834 tons
nitrogen oxide – 332 tons
carbon dioxide – 227,000 tons*

carbon dioxide reduction equates to ½ billion vehicle miles driven

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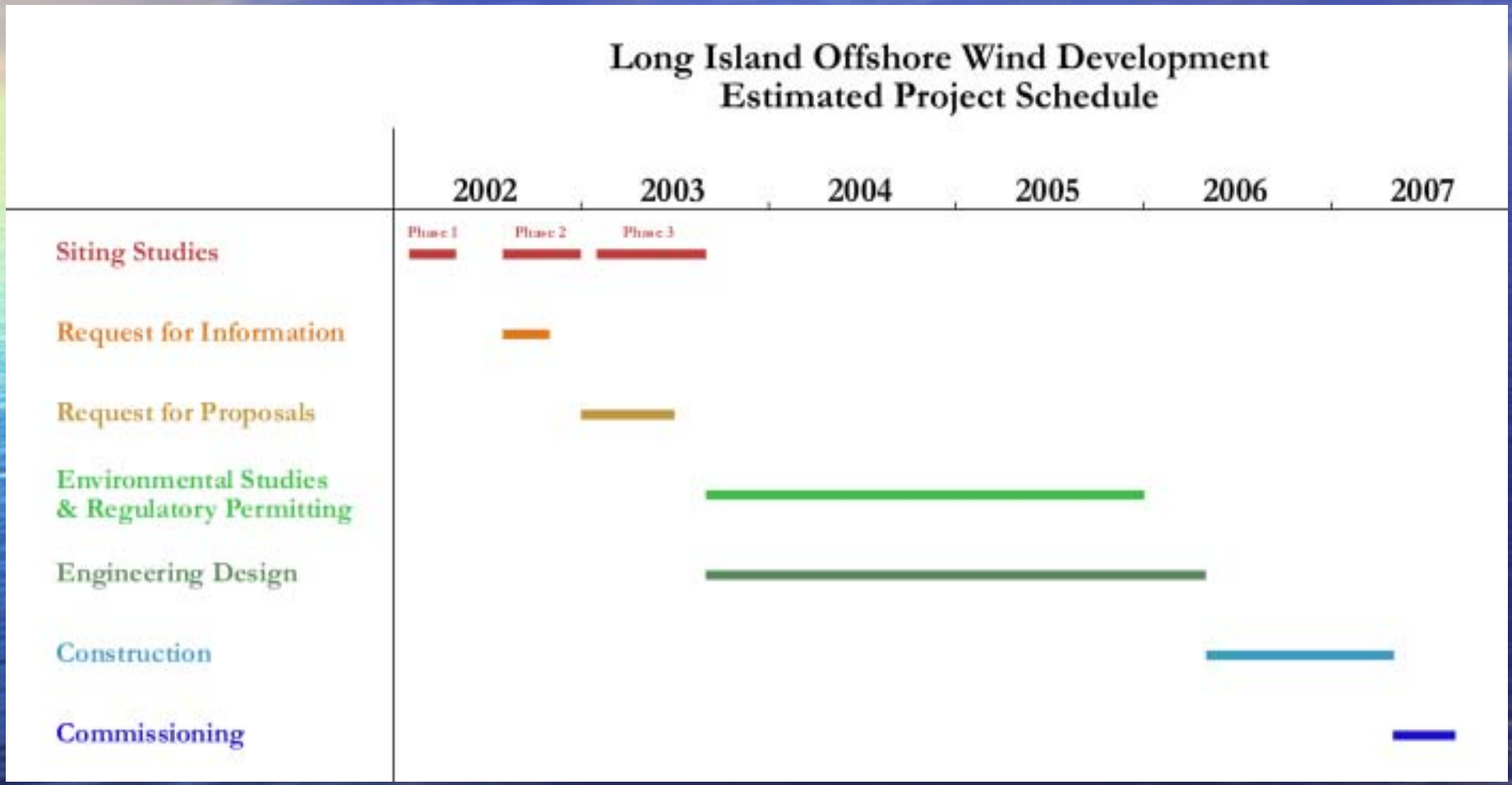
Projected Schedule



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Questions/Followup

- Submit questions to:
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  or
  Fax: 516-719-9885

- To request a presentation, contact:
  516-719-9890

- For more information, visit
  www.lioffshorewindenergy.org


Long Island Offshore Wind Initiative
Reports Available at
www.lioffshorewindenergy.org